



Regional Conservation Strategies Overview

***Delta Restoration Network Meeting
November 7, 2013***

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Purpose and Bases of Regional Conservation Strategies

To build strategies for ecologically coherent restoration and pragmatic implementation, based on...

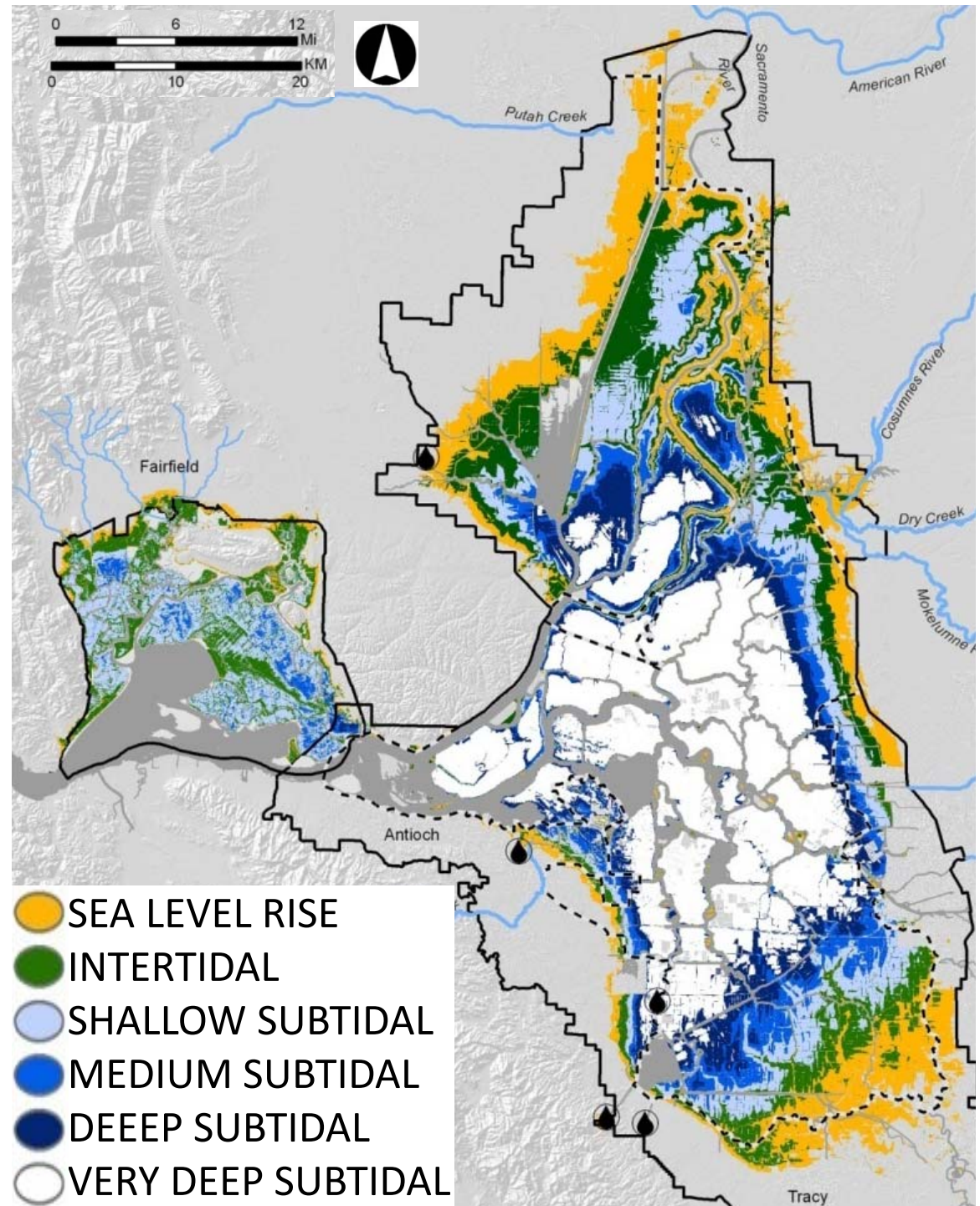
- 1) an understanding of the natural and human landscapes and their implications
- 2) how the natural and human landscapes operate = conceptual models
- 3) an assessment of restoration feasibility relative to technical and socioeconomic criteria

Functions of the “Living” Regional Conservation Strategy

- Home for “best available science”
- Directs geography and general design of actions
- Founded on restoration principles (see Delta Restoration Framework)
- Enables adjusting (“gaming”) priorities to consider alternative futures
- Lays out regionally specific issues and approaches for moving forward

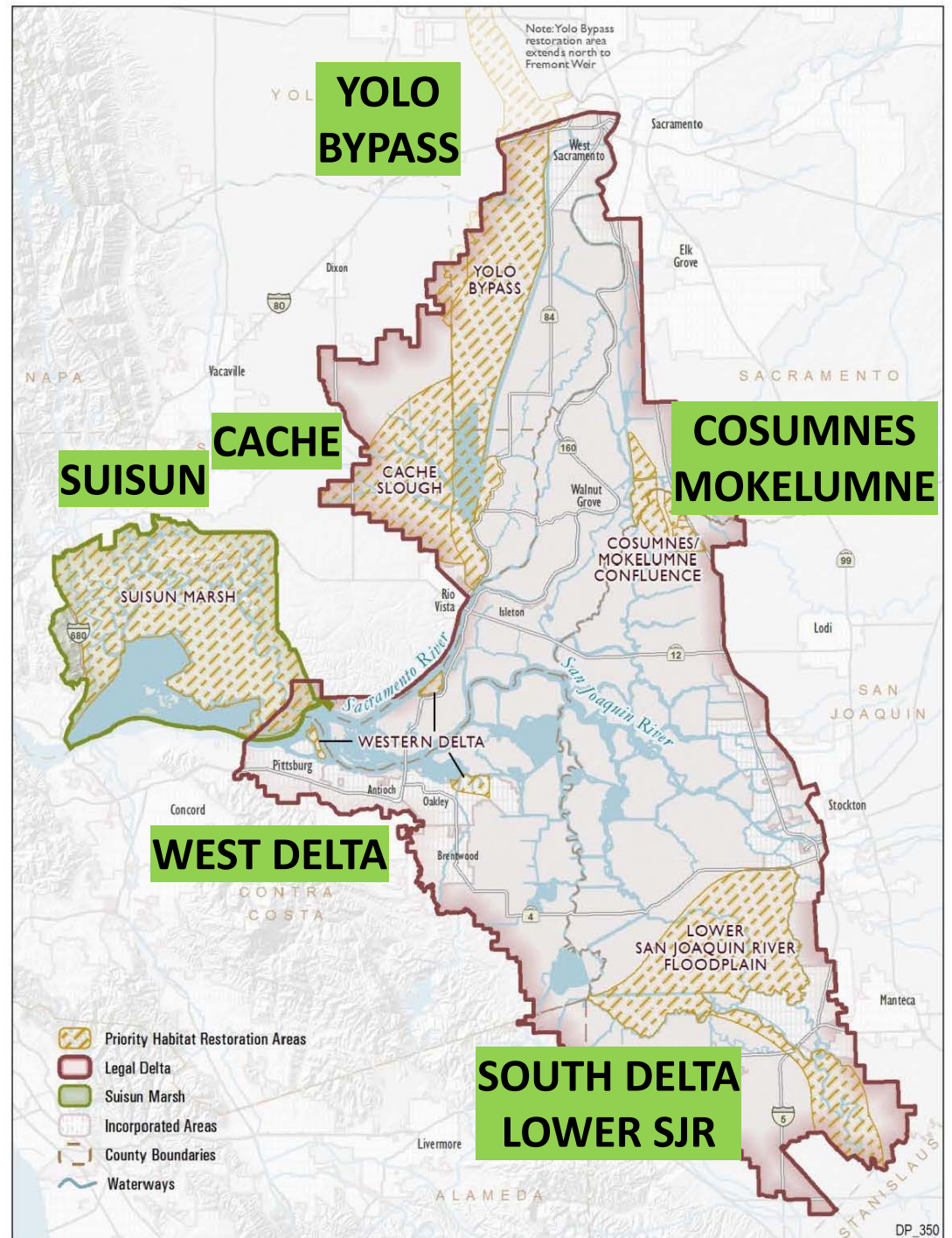
Geomorphic Focus:

*Intertidal,
Shallower
Subtidal,
Floodplain,
Sea Level Rise*

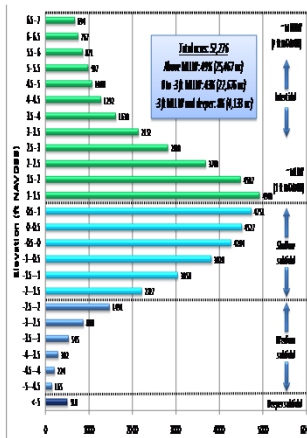


**But...not all
lands
functionally
equal**

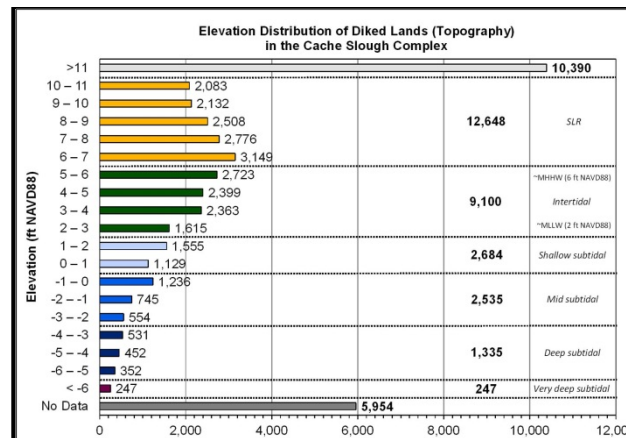
***Delta Plan
Priority Habitat
Restoration
Areas***



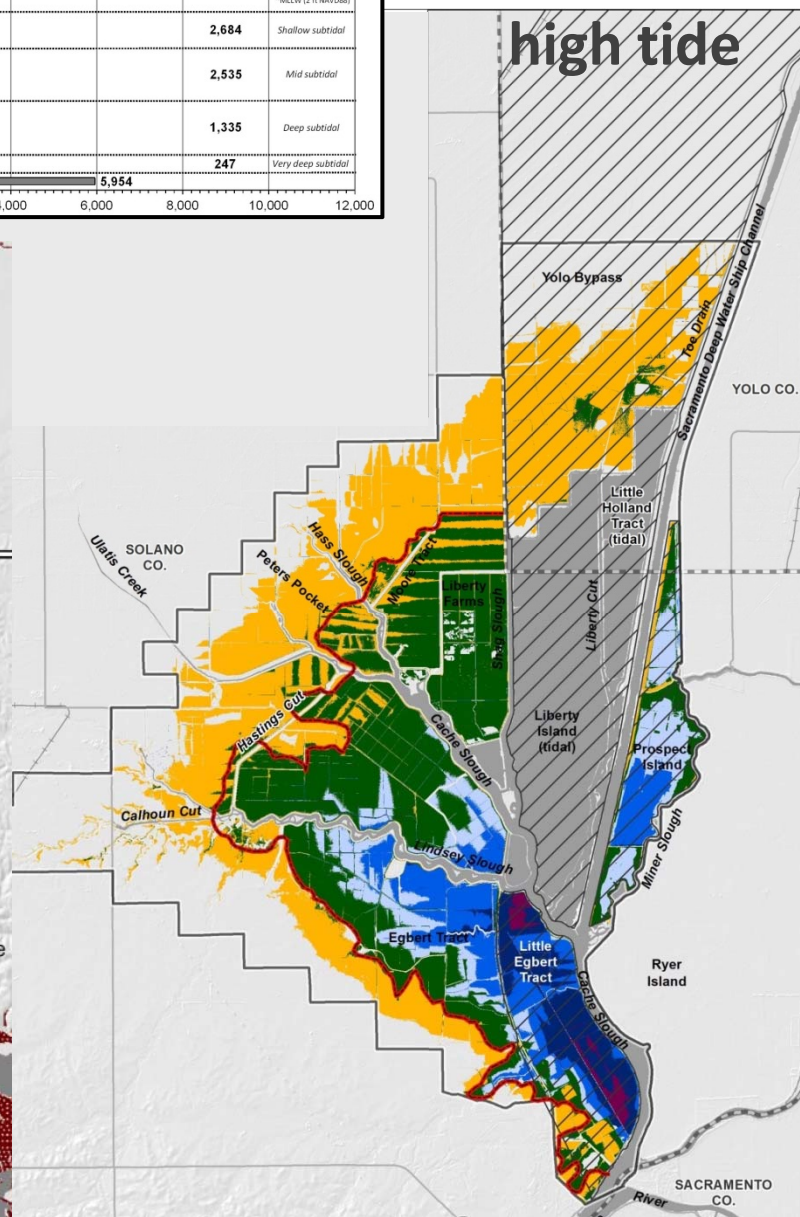
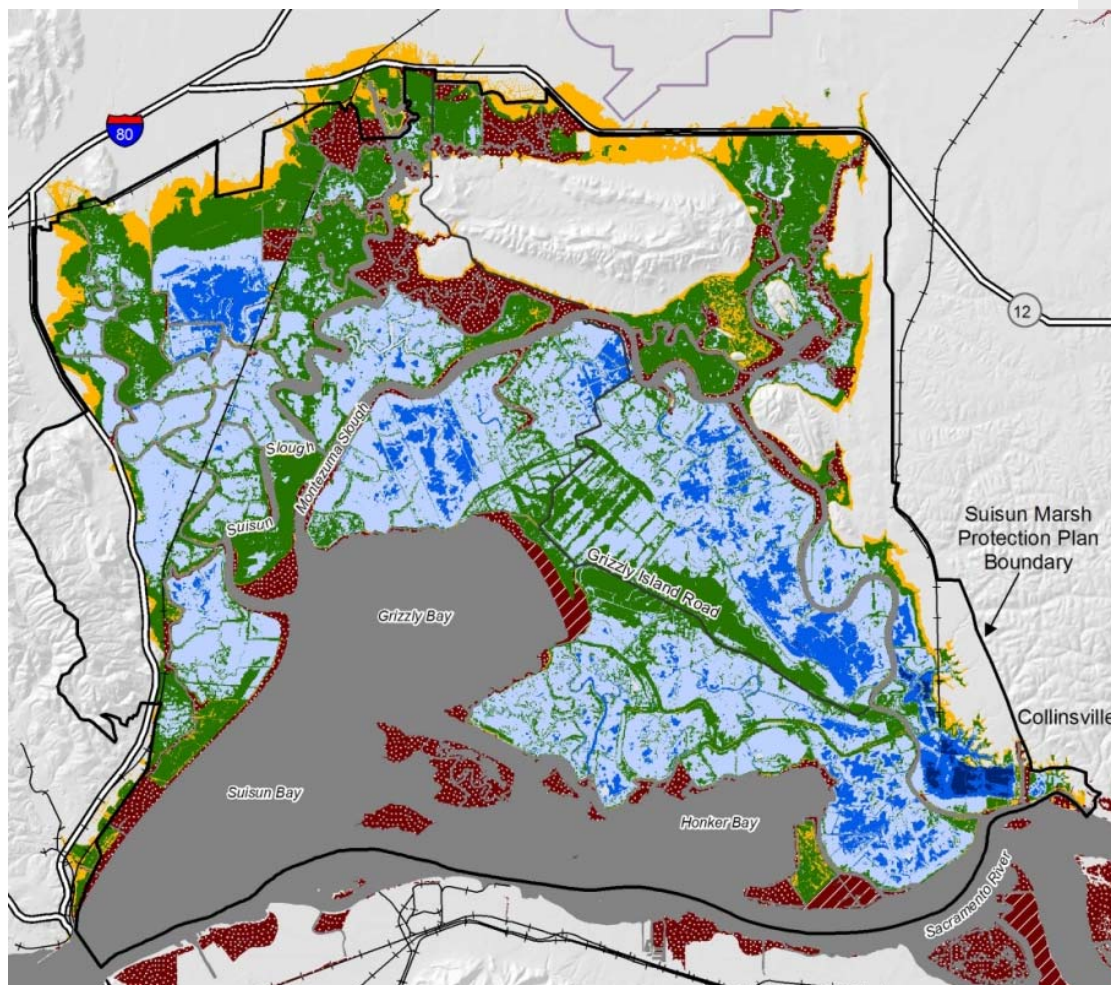
Suisun
~50K ac<
high tide



*Horizontal
acre scale
same both
histograms*



Cache
~20K ac<
high tide



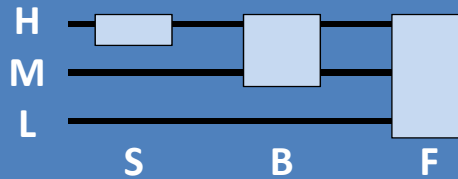
Tidal Salt Marsh



Tidal Brackish Marsh (fresher)



Vegetation depth & salinity



Tidal Brackish Marsh (saltier)



**Tidal
Freshwater
Marsh**



Source TNC Approach

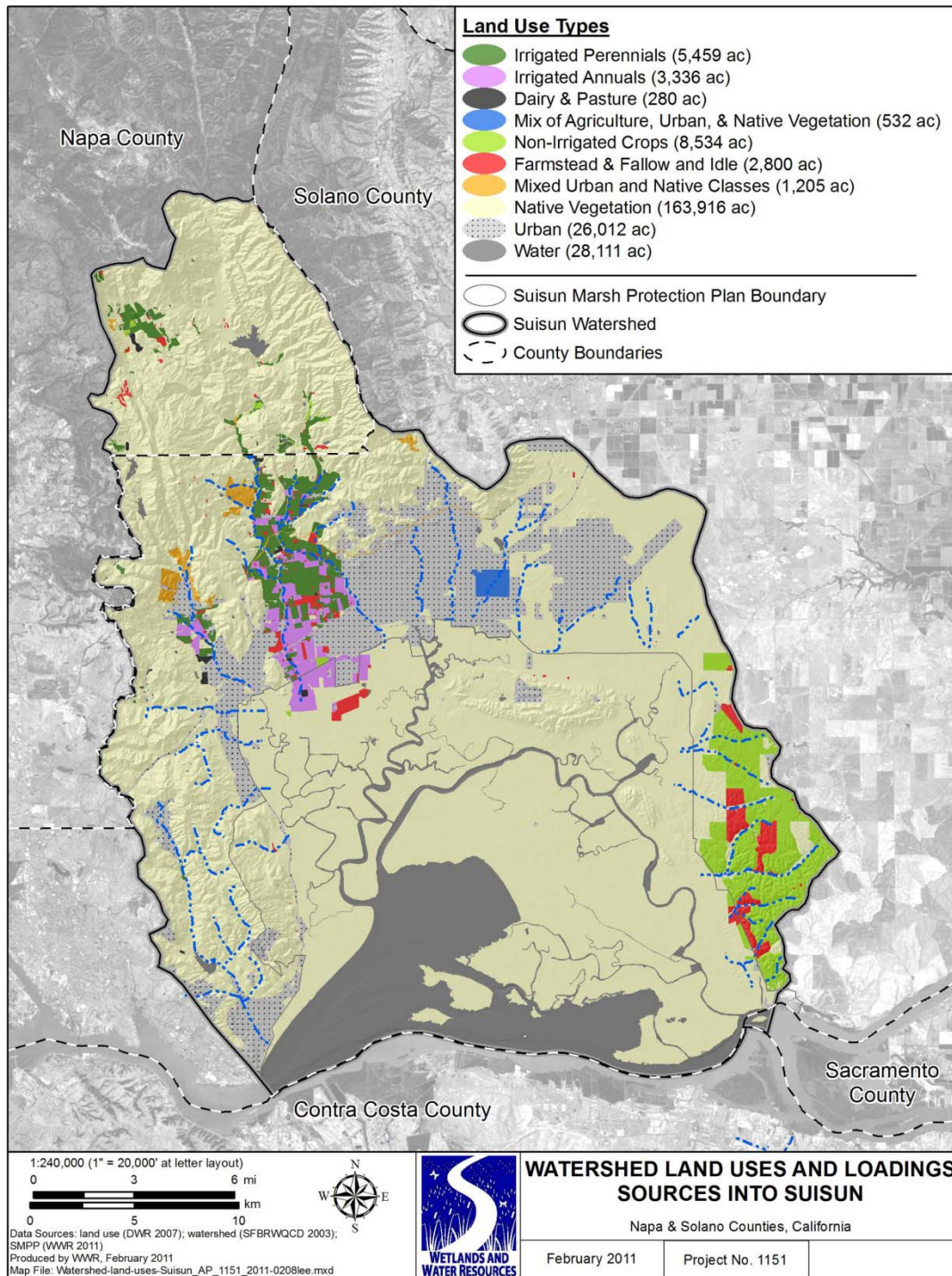
Based on TNC Conservation Action Planning Process

- Scope and targets, viability and threats, situation analysis, strategies, measures
- www.conservationgateway.org/ConservationPlanning/ActionPlanning/Pages/conservation-action-plann.aspx

Volume I: Characterization Report

Existing Conditions and Restoration Implications

- ✓ **Conservation Strategy Purpose**
- ✓ **Description** of current landscape, brief historical landscape
- ✓ **Physical setting:** levees, hydrology, geomorphology, geology, water quality
- ✓ **Land use setting:** agriculture, natural resources, etc.
- ✓ **Biotic resources:** habitats, distributions, viability and threat assessments, responses to restoration, uncertainties and hypotheses: vegetation and natural communities, fish and aquatic food web, wildlife
- ✓ **Other ecosystem services**
- ✓ **Cultural resources**
- ✓ **Future drivers of change** that will influence the region

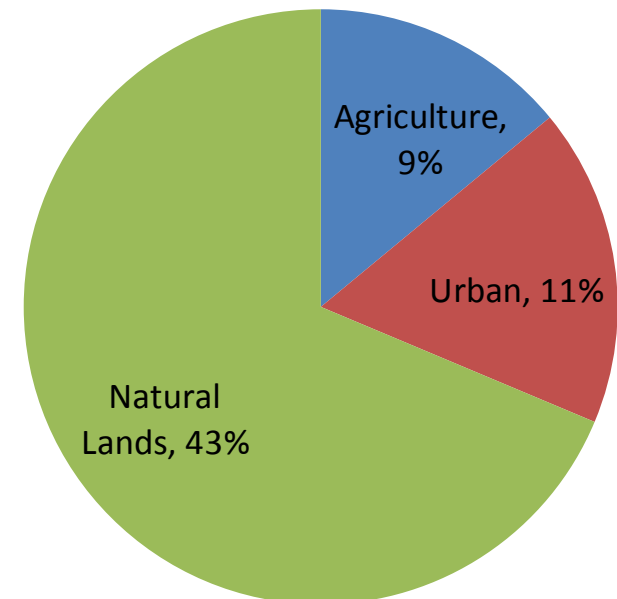


Watershed Land Use

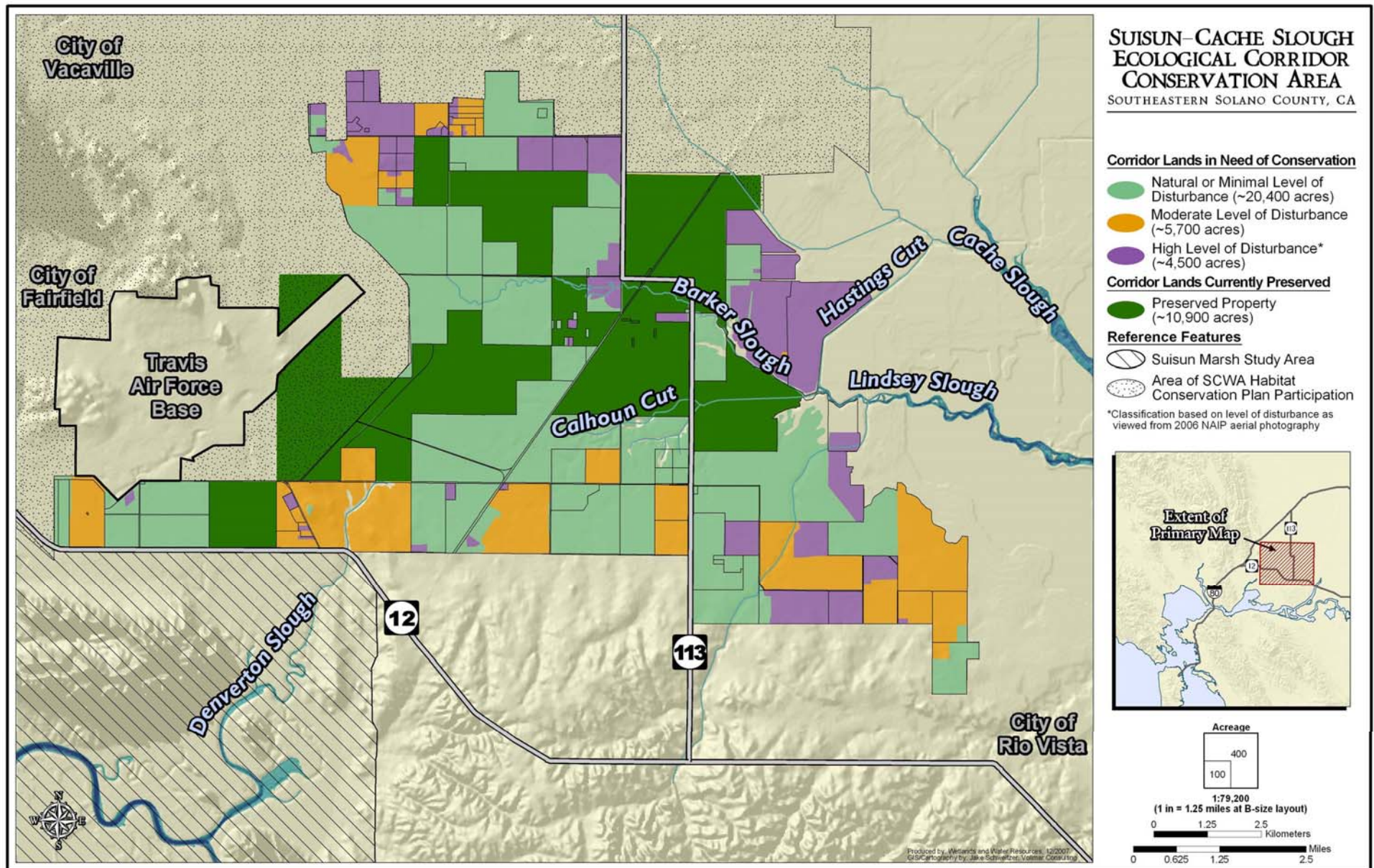
Total watershed ~150,000 ac

- Urban (~26,000 ac)
- Agricultural (~21,000 ac)
- Woodlands and grasslands (~103,000 ac)

* *All stormwater enters untreated*



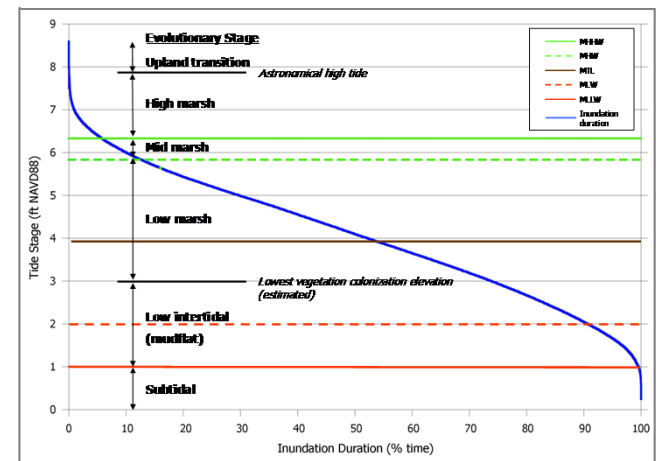
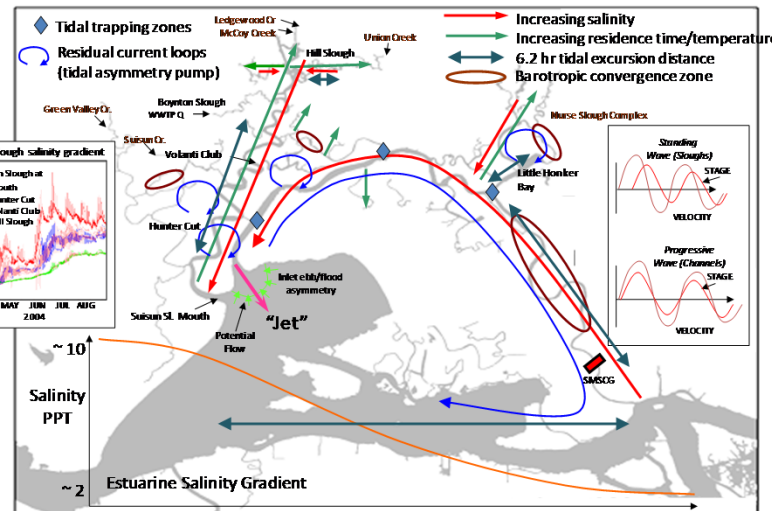
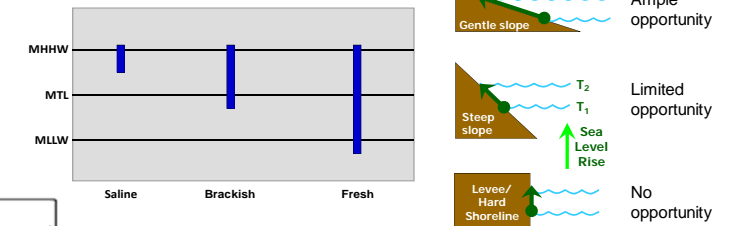
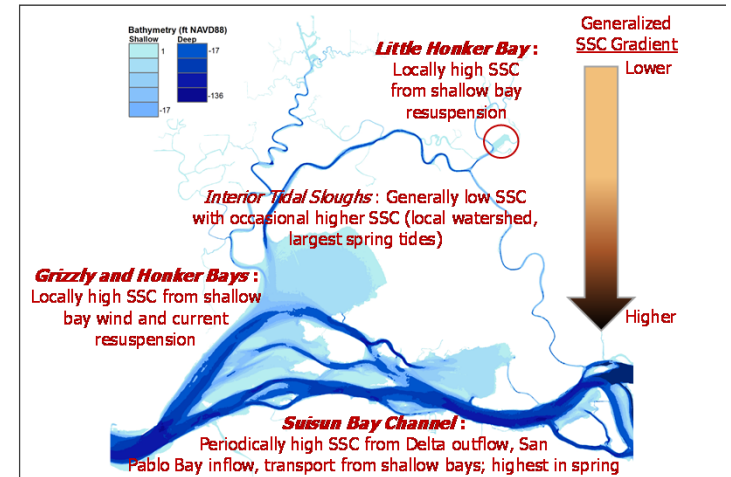
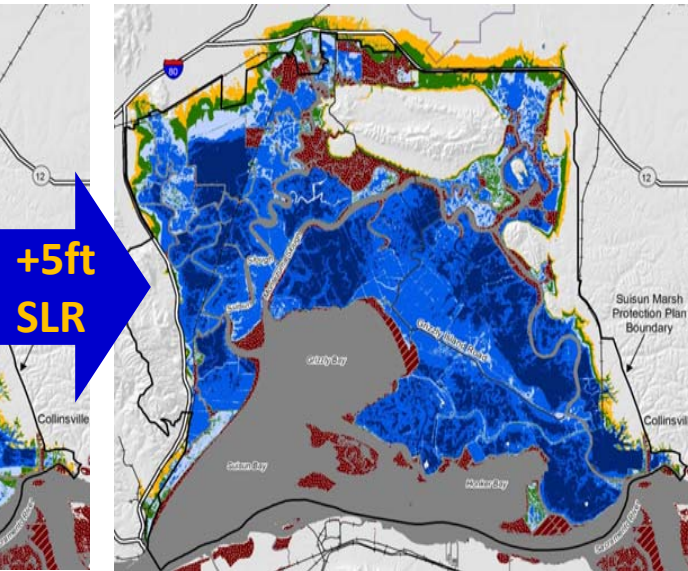
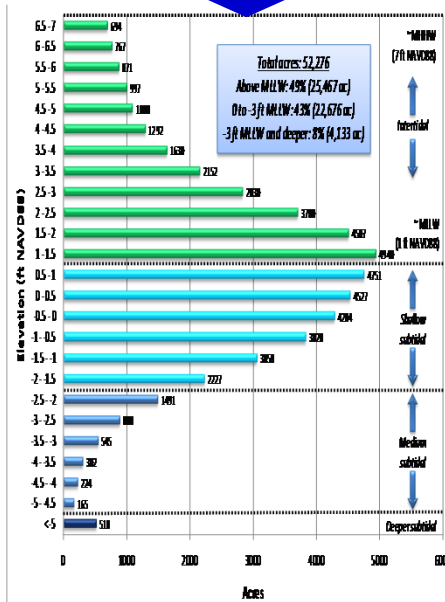
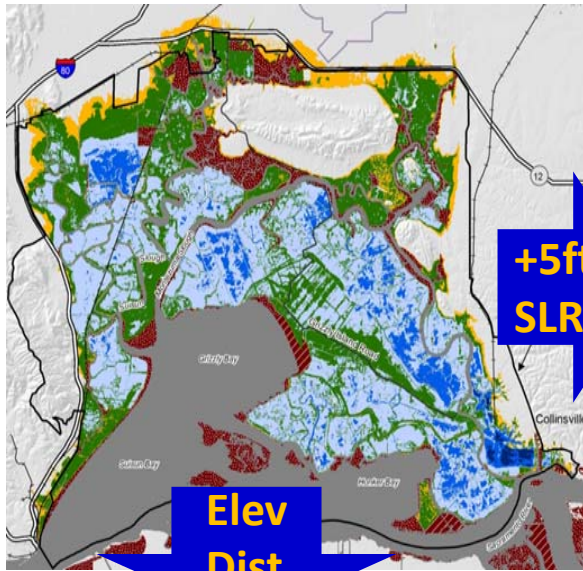
Corridor Between Suisun and Cache



Volume II: Processes and Principles

- ✓ **Strategic vision** for restoration
- ✓ **Landscape-scale conceptual models** of hydrology, geomorphology, water quality, land use that influence restoration potential and outcomes
- ✓ **Restoration hypotheses** guiding restoration strategies
- ✓ **Key restoration principles** guiding formulation of strategic plan
- ✓ **Priority restoration subregions** (if applicable)
- ✓ **Measures of success** tied directly to restoration hypotheses

Founded Upon Many Conceptual Models



Volume III: Conservation Strategy

Where the rubber meets the road

- ✓ **Units of analysis:** restoration units, properties
- ✓ **Integrated restoration feasibility:** multiple criteria weighted by relative priority. Capable of testing different view points
- ✓ **Landscape–scale implementation strategy:** forecast alternative futures and effects cascade of restoration and working landscapes:
the work of Adaptive Management
- ✓ **Support implementation decisions:** acquisition, interim management, design, environmental compliance strategies, implementation, assessment and long-term management



THANK YOU !

Browns Island Oct 2003

Photo: S. Siegel